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ABSTRACT

This statement was presented by the chairman of the American Telephone and Telegraph Company before a United States Senate subcommittee hearing on domestic communications common carrier policies. It contains a discussion of the principles that have governed the telephone industry throughout its history and then presents arguments against the Federal Communication Commission's policy of promoting competition in various areas of the telecommunications market. Contending that such competition would increase the cost of telephone service for home ratepayers, impair the quality of that service, and impede telecommunications innovation, the statement concludes with a plea for the development of a long-range telecommunications plan that would create a balance of interest among government, education, business, and entertainment concerns. (FL)

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Telecommunications Policy for the Future- A Balance of Interests

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Statement of AT&T Chairman
John D. deButts
before the
Senate Subcommittee on
Communications,
March 21, 1977



In March 1977 the Subcommittee on Communications of the Senate Committee on Commerce, Science and Transportation conducted hearings on domestic communications common carrier policies. John D. deButts, Chairman of the Board and Chief Executive Officer of the American Telephone and Telegraph Company, testified before the Subcommittee on March 21. His filed statement follows.

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John D. deButts

Chairman, American Telephone and Telegraph Company

Telecommunications Policy for the Future— A Balance of Interests

Mr. Chairman, I appreciate the opportunity to participate in these hearings on domestic communications common carrier policies, the benefits they afford and the difficulties they present.

I believe I can serve the Subcommittee's purpose best by addressing myself first to the basic principles that have governed the telephone industry through most of its history, and thereafter to the jeopardy to the continued applicability of those principles posed by the Federal Communications Commission's declared policy of promoting "competition" in selected segments of the telecommunications market. For reasons that will appear later I use the word "competition" in quotes.

Three principles are in large part responsible for the present scope and quality of telecommunications services in the United States. They are:

- one, the principle of accountability
- two, the principle of universality, and
- three, the principle of systemic integrity.

By *accountability* I mean the assignment to the nation's tele-

phone companies of undivided responsibility—under regulation—for all aspects of the service they provide the public.

By *universality* I mean what has been our industry's goal virtually from its beginning—universal service. It is to this end that generations of telephone people have addressed themselves continuously not only to the advancement of communications technology but to the development of the operating standards, the organizational resources and the market strategies that would make telephone service available to as many people as possible at as low a cost as possible.

By *systemic integrity* I mean the ability to design, build and operate the nationwide telephone network as a single entity, all its components and subsystems subordinate to the overall purpose they together serve. In no other way, I am confident, could so intricate a mechanism be made to work so well.

From the application of these three principles, it appears to me undeniable that the public has benefited enormously in terms of low-cost, universally-available service of superior quality.

Evolution of Basic Principles

But where did these principles come from? No single source gave rise to them. They emerged out of the experience of our industry and the perceptions of its leaders and regulators during the years in which the telephone grew from an interesting scientific toy to the vital instrument of society that we know it to be today.

Particularly do the governing principles of our industry reflect the experience of that period following the expiration of Alexander Graham Bell's patents when competition was rife in the telephone industry and rival telephone companies battled each other—sometimes literally—for the right to serve the same territory.

In those days duplicate facilities produced higher costs. Price cutting produced wretched service, and customers—to reach all the people they might want to reach—found themselves faced with the necessity of subscribing to service from two or more companies.

It was out of this experience that the supply of telephone service came to be recognized as a "natural monopoly"—that is, an undertaking that can be carried out at a lower cost to society by single suppliers exclusively franchised to serve designated areas than it can by two or more. At the same time, it was recognized that where there is no competition there must be regulation. Thus, contrary to the contention that it is settled national policy that, wherever in our economy

competition might be installed it should be, the facts of the matter are that long ago experience taught us that there are some sectors of our economy—and telecommunications is one of them—where the public interest is better served through regulation than by competition. It was from this experience that our present system of regulation evolved, initially at the state and local level and eventually at the Federal level as well. The climax of this evolution was the Communications Act of 1934 and its clear declaration that the overriding objective of national policy is:

"... to make available, so far as possible, to all the people of the United States a rapid, efficient, Nation-wide, and world-wide wire and radio communication service with adequate facilities at reasonable charges . . ."

In those words, the Congress confirmed universality as the aim to which our industry should address itself and toward which our regulators should direct us. In those words, the Congress established the primacy of interests of the general public—"all the people of the United States"—over the particularized interests of special classes of users.

It is now 43 years since the passage of the Communications Act. How well it has served as an instrument of national policy you may judge from the development of the nation's telecommunications services in the years since.

Today more than 90 percent of the country's households are served by telephone compared with 31 percent

in 1934, and the coast-to-coast daytime telephone call that in 1934 cost \$9.00 today costs but \$1.30. Unquestionably the American people have been provided with an efficient nationwide communications service with adequate facilities at reasonable charges. Unquestionably the public has been served well by the concerted application of the principles of accountability and systemic integrity in the interest of achieving universality. In keeping with these concepts, the Bell System, the Independent telephone companies and the telephone cooperatives have worked together as partners, not competitors, to avoid wasteful duplication of facilities. In designing, building and operating the nationwide network, we have worked as one.

Each company, however, has full responsibility—and is held by regulation strictly accountable—for the service it provides the public within its own operating territory. For most of the past 43 years that responsibility and that accountability have been unqualified. We call it end-to-end responsibility. It means that whatever goes wrong with your service and whenever it goes wrong, we'll fix it—without extra charge.

Pricing for Affordability

Not until now have I mentioned a factor that as much or more than the industry's progress in technology is responsible for the universal availability of telephone service in this country—a price structure that

favors the home telephone user.

This price structure evolved over the years. It was not alone the industry's devising but that of its regulators. Admittedly it is a structure not without imperfections. But it is, I submit, an appropriate structure for an industry charged as ours is with responsibility for assuring the widest availability of high-quality communications service at the lowest cost to the entire public it serves.

To this end, our industry, for a great many years, has kept basic telephone rates low especially for the home by pricing optional services, particularly long distance service, well above their direct costs. As a result, approximately \$3 billion a year of interstate long distance revenues flow back to the local telephone companies to help cover the common costs of the business, costs that otherwise telephone rates for other services, particularly basic service, would have to cover.

To this same end—assuring the widest availability of our services—we in the telephone industry have traditionally averaged our costs so that we might establish uniform rates. For interstate calls between points a like distance apart, we charge the same rate even though the costs may vary widely from route to route. To customers within the same area, we charge the same base rate even though it obviously costs more to serve the customer 10 blocks from the telephone office than it does to serve the customer next door.

Permit me to cite a few examples of the need for rate averaging if people are to have telephone service.

In Sioux Rapids, Iowa, we had to invest an additional \$259,000 in a rural service improvement project for approximately 160 customers. The *additional monthly* cost of providing this improvement is \$23 per month per customer. The highest rate paid by any of the customers in the area is less than one-half of that amount—\$10.55.

In Hope Hull, Alabama, we had to spend \$357,000 just for cable facilities alone to provide service to 73 customers. In the first year, this amounted to an additional monthly cost of \$102 per customer while the basic one-party rate paid in Hope Hull amounts to only \$13.75 per month.

In Mount Pleasant, South Carolina, we had to invest \$94,000 in a growth and service improvement project for 28 customers. This represents a monthly cost of \$80 per customer merely for cable facilities. The highest rate paid by any of these customers is \$11.10 per month.

As common carriers, committed to serve everybody, we can't pick and choose which customers we'll serve and which we won't. Providing as we do an essential public service, we can't concentrate our attention on the low-cost, high-profit segment of the market while ignoring the places where costs are high and profits low. We must serve

everybody. For generations, we in the telephone industry have accepted this obligation as part of the rules of the game. It is an obligation that unregulated firms and many of our competitors don't bear. We accept it willingly, however, recognizing that, privileged as we have been to serve the nation virtually without competition, the nation has the right to expect no less of us in return.

Fundamental Principles Threatened

Today the common understandings under which we in the telephone industry have sought to fulfill our common carrier obligations have been shattered. They have been shattered by a series of decisions by which the FCC has undertaken to sponsor "competition" in selected segments of the telecommunications industry — notably in the supply of intercity private line services for businesses and in the supply of terminal equipment — telephones, switchboards, answering sets and so on. These decisions compromise and, if they prevail, will eventually make untenable the three basic principles that have governed the development of telecommunications in this country over the better part of a hundred years.

They compromise accountability by fragmenting responsibility for service and in my view seriously jeopardize its quality.

They compromise universality by undermining the pricing structure

that makes telephone service so widely affordable.

And they compromise systemic integrity by changing the ground rules governing entry in ways that not only encourage a wasteful duplication of facilities but permit some customers to use the network in ways that might be advantageous to them without regard to the consequences of their doing so on other people.

Let me review as briefly as I can our experience with FCC-sponsored "competition," first in the intercity private line field and then in the terminal field.

Authorization of "Competition"

When the Commission first undertook to depart from established policy by authorizing Microwave Communications, Inc. to offer private line services between Chicago and St. Louis, it did so as an experiment. Yet, what led the Commission to conclude — some 21 months later and even before MCI was providing service—that as a general proposition the public interest would be served by permitting new entrants to the intercity private line market remains obscure.

Certainly there had been no showing then—nor has there been any showing since—that the new entrants—the specialized common carriers, as they came to be called—would offer any service significantly different except in price from the services offered by the existing

common carriers. The unique and innovative services the SCCs projected have simply not been forthcoming.

At this point you might well ask whether the fact that the specialized carriers can offer lower prices than the established carriers isn't a sufficient vindication of the FCC's decision to open the private line field to competition. I submit to you that it is not. The reasons the specialized carriers can undercut the rates of the established carriers are that they are free to serve only where it will profit them most while we must serve everyone and, as I will elaborate on later, the artificial regulatory restraints placed on the common carriers when they try to respond to "competition."

In short, what makes the intercity private line field so attractive an entrepreneurial opportunity—or to put it another way, what makes us vulnerable to "competition"—is not any inadequacy in our service or our technology but rather the pricing structure we and the regulators had developed in response to what we had conceived to be the public's interest in the widest availability of service. Ironically our greatest vulnerability lies in precisely that sector of our business that makes the greatest contributions to common costs and therefore to our ability to keep basic rates low. I mean long distance.

To be more specific, on the average we collect approximately \$9 a month as a basic charge to the home telephone user. But the cost to us of providing that service (including the cost of the access line that is

used not only for local service but for long distance as well) is about \$16 a month. A substantial portion of the \$7 difference is made up by long distance revenues. As I indicated earlier, some \$3 billion a year of interstate long distance revenues flow back to the local telephone companies. It is these dollars, combined with revenue contributions from intrastate long distance service and from telephone companies' so-called vertical services, that permit them to hold down basic home telephone rates.

But what, you might ask, has competition in the intercity private line field got to do with long distance revenues? The answer—to use the economists' phrase—is cross-elasticity. As competition drives rates for private line service closer and closer to the costs of the service, more and more businesses will find it advantageous to switch from long distance—what we call “message toll”—to private line. And I must emphasize that the average long distance call contributes 55 cents to help keep basic rates low.

In any event, the specialized common carriers have made no secret of their aim. It is the entire business long distance market. It is this market that has attracted not only the smaller entrepreneurs presumed to be locked in unequal struggle with the colossal Bell System but some of the nation's largest corporations such as IBM, ITT, RCA, Southern Pacific, and Aetna Life and Casualty. Our concern about their entry into the telecommunications market stems

not from any doubt about our ability to compete in terms of technology and service with the best they have to offer. What does concern us is the prospect that our ability to keep telephone service economically available to all will be steadily eroded as these companies drain long distance calls away from the network or we ourselves reduce rates to meet their competition. In either event, the cost burden will be shifted from the big business caller and from the relatively affluent people who use long distance frequently and it will be shifted to the average telephone user.

It is probably not surprising that our new competitors—and, for that matter, many of their big business customers—do not share our concern for the average telephone user. Not surprisingly they say that costs ought to determine rates and that no class of user—not even the home telephone user—ought to benefit from contributions from another class of user.

Hear this from an editorial in *Infosystems*, a trade magazine of the computer industry. If it's true, the editor writes, that:

“free competition in the profitable end of the communications business will increase the cost of basic telephone service . . . then we would opt for competition . . . allowing the Bell System to change its rate structure so that each pays in proportion to what his service costs. If this means higher rates for many of us, so be it. That's the price of free enterprise, and it's well worth it.”

That, forthrightly stated, is one man's opinion. It comes as close as any statement I've seen to what seems to me the basic thrust of the position of the apologists for "competition" in the intercity market. To them competition is an end in itself, regardless of its costs to other customers—almost 65 million of which represent residence households.

At the outset of the discussions of the role of "competition" in the telecommunications industry, we in the telephone industry said to our regulators that if—despite our concerns—you in your wisdom decide that competition in this sector of our business will serve the public interest, then all we ask is the opportunity to compete on equal terms. We did not then—nor do we now—have the least doubt about our ability to match the skills and the energies of our would-be competitors. What we did not realize then but know now is that there can never be competition—real competition—when some of the parties to it are free to pursue profit where they please and others—the telephone companies—are under obligation to serve the entire public. It is for this reason that virtually every time I have used the word "competition" in this statement I have—at least mentally—bracketed it in quotes.

Experience with "Competition"

What has been our experience with the FCC's brand of "competition"?

Despite what we took to be an earnest declaration by the Commission of its intent to assure that the competition it established in the private line field would in fact be real competition and that the same ground rules would apply to all parties, the Commission has allowed our competitors to price their services on as little as one day's notice while we have been permitted to price our own only after protracted regulatory proceedings and in some cases litigation. In fact, when we first sought to file rates responsive to the newly established "competition" in the private line field, we found the way barred by an altogether novel requirement. The FCC required that before we could file, we must first file for permission to file. It was only after that requirement had been outlawed by the courts that we were able to file our Hi-Lo rates, rates that the Commission did not permit to go into effect for yet another nine months.

Likewise we have been barred for a period of three years from using our Comstar satellite for private line services to business, but not to government.

Also the Commission delayed our introduction of Dataphone® Digital Service, it has restricted its expansion and required us to charge rates higher than we need to charge.

It is on the basis of this experience that we have come to wonder whether the Commission meant what it said when it assured the telephone companies that they

would be free to price to reflect the advantages inherent in their plant and operations.

More fundamentally what I am saying is that the policy of encouraging "competition" in selected sectors of the telecommunications market is philosophically irreconcilable with the common carrier principle. That principle implies the paramountcy of the interests of the general users of telecommunications service, necessarily at some cost to the particularized interests of special classes of users. "Competition" in telecommunications, on the other hand, elevates particularized interests at a cost—in this instance a very considerable cost—to the interest of most people.

To bring home to you what a sham is the Commission's sponsorship of "competition" in the intercity private line field, let me invite you to imagine what might happen were no protective umbrella extended over any of the contenders in this field and were we as free as they to serve where we pleased. The outcome is predictable. So large are the economies of scale in intercity transmission that inevitably only one supplier would survive such a contest. In short, it makes no more economic sense to have competition in the intercity field than it did—75 years ago—to have two or more telephone companies in town.

Why, then—if the consequences were so predictable—did the Commission undertake to open the long distance field to "competition"? I can't answer that except to cite the Commission's own observations to

the effect that in an era of increasing diversification of communications services—and consequently increasing complexity—there might be some sectors of our industry where competition might prove a better regulator than regulation.

It was H.L. Mencken, I believe, who observed that to every complex problem there is an answer that is simple, neat and wrong. If ever there was an answer that experience has clearly demonstrated as wrong, it was the decision to admit new entrants to the intercity private line field. The Commission's policies won't work and can't be made to work in the absence of constant regulatory manipulation of the market in the interest of maintaining the semblance of competition when what we face in fact is cartelization, arbitrarily administered and artificially maintained. In short, it is clear to me that the FCC's brand of competition is going to mean not less regulation but more.

The Price of Intercity "Competition"

It is now almost six years since the FCC concluded that the public interest would be served by "competition" in the intercity private line field. In those half-dozen years the specialized common carriers have deployed their facilities along the nation's more heavily trafficked communications routes from coast to coast and border to border. They offer no truly innovative services. Their facilities simply duplicate

those of the traditional common carriers. That this duplication in time will be far from inconsequential is clear from studies that demonstrate that the nation will spend \$2.4 billion more for telecommunications between 1971 and 1991 if all interstate private line services are provided by a separate network rather than by a single network providing all services.

Not only has "competition" in the intercity private line field spawned wasteful duplication of facilities but it has created as well difficult and expensive problems of accommodation as we are required to mate our facilities to those of competitors with different design standards, different operating methods, different maintenance procedures. The task of network planning, already sufficiently complicated, is becoming more so as we are called upon to cope as best we can with imbalances that arise when competitors use our facilities to optimize results for their customers without regard to the impact of doing so on all customers.

As I indicated earlier, to work as one the network must be designed as one. The configuration of its facilities is constantly changing on the basis of carefully calculated estimates of such factors as trunk utilization, holding times, length of haul, peak-to-average load, etc. "Competition" jeopardizes the accuracy of those estimates and thereby the efficiency with which the network operates.

Now I am not saying that the telephone network won't work and

can't be made to work if responsibility for its design, construction and operation is divided among multiple suppliers. What I am saying is that under those conditions the task will be enormously more difficult and much, much more costly and all this extra effort will produce service of poorer quality.

Terminal Equipment "Competition"

Let me turn now to the second major sector of telecommunications in which the FCC has decreed "competition," the terminal area—the market for switchboards, telephones, answering devices, data sets and so on.

In the terminal area, as in the intercity field, an initially highly circumscribed policy decision has been vastly expanded by subsequent Commission action. It was in 1968 that the FCC in the *Carterfone* decision voided tariffs that stood for half a century barring the attachment of virtually all but telephone company terminals to the network and incredibly labeled those tariffs "unlawful from their inception." Yet even in that ruling the Commission explicitly stated that it did "not hold that a customer might substitute his own equipment or facilities (whether it be telephone instruments, loops, poles or central office equipments) for that furnished by the telephone company in providing message toll service . . ."

It is a far cry from that cautious finding on substitutions to the

FCC's current registration order that, had it not been stayed by the courts, would require us right now to permit the direct electrical connection to our lines of customer-provided terminal equipment of virtually every variety—not merely ancillary or add-on equipment, not merely extensions but main telephones, PBXs, key systems, etc.

The New York Public Service Commission has a like order pending. Should either the FCC's registration order or New York State's, or both, take effect they would supplant the tariffs that since 1968 have permitted the connection to telephone company lines of no less wide a spectrum of terminal gear—but with this proviso: connection must be accomplished through a telephone company protective interface or, in the case of answering sets, through built-in protective modules manufactured to telephone company approved specifications.

Ever since 1968 the requirement of a protective interface has been under constant attack by spokesmen for the interconnect industry. In so many words, the requirement has been described as an anticompetitive device designed not to protect our network but to preserve our market.

In so many words, let me say to you that's not so. In 1968 we believed and we believe today that the soundest, most economical way to protect the network from the harms that might arise from non-confirming or poorly maintained terminals is through a physical protective interface.

Removing that safeguard we believe is too big a risk. Our aim has been to open our network to as wide a range of applications as possible and to that end we have sought to make the terms of interconnection as simple and inexpensive as possible. Nevertheless, we believe the network is too important a resource to expose to the hazards that may arise from the direct connection of a proliferation of customer-owned terminals and wiring for which we have no responsibility and cannot properly be held accountable.

Obviously the FCC looks at the matter otherwise. Obviously the New York PSC does, too. For the public's sake we hope they're right. Should their registration programs come into effect, we would be pleased if experience proved our fears unwarranted. Among other things it would mean that we had built our network more robust than we ourselves knew. In any event, should registration come, you may be sure we're going to do our best to make it work. In the nationwide switched network we have built a precision instrument of great value to the public. We do not propose to stand aside and see it damaged, if we can possibly prevent such damage.

Questionable Competition

In this area of terminal equipment, as in the private line field, while we have competitors, it remains a question as to whether we have competition. Can it be compe-

tition when we are regulated and the suppliers of interconnect gear are not? The interconnect suppliers are free to write their own price tags. Our rates must be approved by regulatory commissions, frequently in the face of concerted opposition by our competitors and months of protracted hearings.

For example, the introduction of the Com Key* key telephone system, a business telephone system with many special features, provided the first good indication of what Bell could expect as a regulated industry in a competitive environment. Attempts to introduce the system resulted in intervention by competitors before various state commissions, commission hearings, and delays. Ultimately, hearings were held in over 20 jurisdictions and about one-quarter of these are still pending. In one state more than a year elapsed between the original filing and the granting of a Com Key tariff, and that was a tariff that the Commission modified substantially.

Also the introduction of our new Dimension® PBX for business—a versatile and very popular PBX—has encountered similar obstacles.

Tariffs have been filed in 48 states and Washington, D.C. Again we have encountered intervention and delay. Hearings were ordered in 33 states and tariffs had been totally suspended in four of those states.

Although most filings occurred during 1975, only eight commis-

sions of the 33 that ordered hearings have issued final decisions.

Dilemmas of Registration

Looking ahead to what might happen should registration take effect, we face still more dilemmas and more confusion.

I submit to you that the additional economic impact which would flow from the registration program on the average user of telephone service has not been adequately weighed. I have heard of no proposal for minimizing the added burden to the average user that would ensue from the further loss of terminal revenues by the telephone companies that would not create indefensible distortions in cost allocation. Such distortions would result in a disruptive redistribution of the long distance revenues that now flow back to the states. What I am saying is that here again there is no easy solution to a very serious problem.

Also, let me point out that the loss of terminal equipment revenue is a serious matter indeed to the Independent companies, particularly the smaller ones, some of which could simply not survive the loss of one or two business customers.

I am suggesting that there are a great many aspects of the "competition" the FCC has loosed upon us that have not been thoroughly thought through and that a great deal of cautious reconnoitering needs to be done before we move deeper into unexplored and potentially hazardous territory.

* Trademark of AT&T Co.

In the overall, then, what do I see as the probable outcomes if the FCC's pro-"competition" policies--again in quotes--continue unchecked? I see three main consequences.

Potential for Poor Service

First, I see a potentially serious impairment of the quality of telephone service and the efficiency with which it is provided. Certainly that will become a more probable consequence if the FCC's registration program goes into full effect or if the states, as New York currently proposes to do, adopt equivalent programs.

Currently the FCC's registration orders--except as they apply to data and ancillary equipment--have been stayed by the courts. Meanwhile the Bell System has responded to the FCC's directives with full cooperation in the development of technical and procedural standards that would make the registration program, should it be permitted to go into effect, at least minimally workable.

Nonetheless the prospect of operating in a registration environment--that is, one in which terminal equipment of just about every kind may be directly attached to our lines so long as it has the FCC's "seal of approval"--gives us grave concern.

Moreover, the Commission orders on registration would force the telephone companies to register their own equipment. This has the

absurd effect of protecting the telephone companies from themselves.

Admittedly we have not been very successful in persuading others--not the FCC and certainly not the purveyors of interconnect equipment--to share our concerns about the hazards to which the telephone network might be exposed if the requirement of an intervening connecting device is removed. Proving potential harm statistically is clearly impossible, but it must be clear that managing the network to the high quality of service we now enjoy will be considerably more difficult when the responsibility is spread among millions of users.

Certainly we in the telephone industry, should registration come to pass, would do our best to control its hazards. Nonetheless we fear--and rightly, I believe--the unknown. We fear the gradually accumulating "pollution" that might eventually grow--if only by almost imperceptible increments--to a point beyond our ability to control or offset it.

Of equal concern to us is the impairment of the efficiency of the network that can occur when customers are free to optimize their use of the network without regard to the impact of their doing so on the service of others. Last fall--in testimony before the Subcommittee on Communications of the House Committee on Interstate and Foreign Commerce--I presented some examples of what can happen when customers fail to equip themselves,

for example, with PBXs with sufficient trunking capacity. Calls back up into the switching office—sometimes a number of switching offices—blocking calls that other customers are trying to make to those exchanges.

In rejoinder to those examples it was observed that these disorders are happening now, that they are happening with equipment that is connected to the network through the protective connecting arrangements we believe are necessary. What bearing have these events on the merits of registration?

They have, I believe, a very direct bearing. Let me put it this way. Does it make sense, considering the harms and imbalances that already plague us under current operating conditions, to develop more experience than we have yet had in coping with those difficulties before we expose ourselves to the incalculably—in the literal sense of the word—greater risks that the registration environment poses?

Registration in my view represents the greatest single discontinuity in this century in the way telephone service is provided in this country. Surely before it is imposed we need to apply to its terms of application the same kind of "thinking in systems" that has been so crucial to maintaining the integrity and quality of the telephone network up till now and without which we risk unpredictable disorders. At the very least, we need to define—and define carefully—a set of evolutionary steps that—by permitting a periodic appraisal of experience—

might preclude our finding ourselves overwhelmed by troubles beyond management.

Burden on Home Ratepayers

The second major outcome of unchecked application of the FCC's policies that I see is a very considerable increase in the cost of home telephone service. The Commission has said that it has taken no action and contemplates none that would have this effect. Nor does it credit our studies of the impact of "competition" on home telephone service, studies that clearly demonstrate that if the policy of competitive skimming of the business and long distance markets is permitted to continue, the burden will eventually be borne by the residential customer.

I know of only one way to resolve this impasse—this issue of credibility. I urge this Subcommittee to engage impartial authorities to appraise our studies and the validity of their conclusions, or perhaps you may wish to undertake your own studies. I am confident our conclusions will be confirmed.

Incidentally last fall we engaged Stanford Research Institute to conduct an independent evaluation of the FCC's First Report in Docket 20003 and the analyses prepared by Technology and Economics, Inc. for the FCC. Docket 20003, as you are probably aware, is the paper docket dealing with the economic impact of competition in the common carrier field.

The findings of Stanford Research, while not completely favorable to us, seriously challenge the FCC report, the T&E analysis and the New York Public Service Commission's terminal equipment study.

Here are two excerpts from the Stanford report:

"... the FCC and T&E erred in rejecting substantial and persuasive Docket 20003 evidence concerning economies of scale in long-haul transmission. Further, they misunderstood the interrelationship between the demand for private line services and the demand for MTS and WATS services. ..."

"... we find the one docket study (New York Public Service Commission study) cited by both the FCC and T&E that purports to show that terminal equipment provides no contribution to be inappropriate for measuring business loss impacts; it should not have been relied upon for this purpose. ..."

With your permission, Mr. Chairman, I would like to make a summary of the Stanford Research evaluation available for the Record at the conclusion of my testimony, and I will provide the Committee with the full report as soon as it is printed—a matter of weeks.

Impediment to Innovation

The third outcome of the FCC's policies that I foresee—and the one

that concerns me most—is the impediment to innovation they pose.

Mr. Chairman, I am not here simply to defend past policies and precepts. I do not claim that simply because those policies have served us well in the past they provide adequate assurance that they will be a sure guide in the future. Technology has changed. Communications requirements have changed—and certainly there are potentialities in telecommunications, especially when linked to the computer arts, that promise a vast extension of man's horizons and his capacity to manage complex undertakings. These potentialities we have barely begun to imagine, much less exploit.

What concerns me most about the trend of current FCC policy is not so much that it risks undoing what has been done but that it stands in the way of what can be done.

Two attributes should characterize telecommunications in the decades ahead. They are abundance and diversity. The fragmentation of service responsibility of the network that FCC-sponsored "competition" begets will frustrate both. It will limit abundance by deferring or denying altogether economies of scale that derive from aggregating communications requirements in a single network. At the same time, it now appears that the very diversity of application that the FCC sought in its *Specialized Common Carrier* decision six years ago lies not in a diversity of suppliers but in the common user switched network and

the new potentialities with which technology just now being introduced will endow it.

What this longer term perspective says to me is that it is important to eschew solutions that, plausible as they might appear at the moment, would at the same time foreclose opportunities that new technology might afford in the future.

It wasn't very long ago when it was seriously proposed that our industry be divided between two sets of carriers, one for voice communications, the other for data—this even though the electrons that carry both neither know nor care which is which. Similarly it was presumed that satellite communications was somehow different in kind—this even though it performs precisely the same function as a microwave relay station, albeit at a somewhat higher altitude. Currently there is a disposition to consider whether, in the intercity private line field, our industry might be divided into a wholesale component and a retail component. Presumably it would fall to the Bell System to fulfill the role of wholesaler or carriers' carrier—and to have the responsibility as well for serving the more remote high-cost localities that retailers would be indisposed to serve for lack of seeing any profit in doing so. What advantage there might be in this arbitrary assignment of roles and the interposition of a third party between the basic supplier and the customer I fail to see.

Underway today is a rapid convergence of the technology of the

computer and the technology of communications. Already "black boxes" exist that, depending on how they are programmed, can switch calls or process data or do both at once. Already computer users see a blurring of the distinction between data processing and data communications. It would be regrettable if in our preoccupation with discriminating between what should be regulated and what not we should erect a barrier that cannot be anything but an arbitrary deterrent to the full realization of the potentials of technology.

We confront, then, I believe, a much larger question than monopoly versus competition or regulation versus deregulation. What we must ask ourselves first, it seems to me, is what communications capability will the nation need not next year and the year after but a decade hence and in the years thereafter.

Already we have in the nationwide, switched network a resource that can be used to send information in just about any form from anyplace in the country to anyplace else in the country. Looking ahead, we can see its application to the remote control of processing and production, to the electronic transfer of funds, to the retrieval of information for education and entertainment, etc. When I say that we are a long way from achieving the universality of service our technology affords, it is prospects like these that I have in mind.

But these potentialities can only be achieved economically through a communications system that is

planned as one and operated as one. It would be ironic, Mr. Chairman, if in an era when we are coming to recognize the need for large scale systemic planning of some of our society's basic undertakings—transportation, the supply of energy, the delivery of health services—we should at the same time apply to the very industry that has served as the model of such planning ground rules more appropriate to the age of the shoemaker. To do so would not strengthen our country; it would weaken it in a world in which we are not alone in sensing what technology can do.

Looking ahead, I see at the core of the information infrastructure of this nation a basic telecommunications network, designed and managed as one entity. It will serve as the nerve system linking a host of terminals and subsystems of a variety currently beyond imagination and circumscribed only by the requirement that they risk no harm to the operation of the whole.

Managing such a system, I recognize, imposes profound obligations. But they are obligations not different from those our industry has recognized as its own throughout most of its history.

New modes of regulation may be required but, as we have in the past, we in our industry are ready to accommodate to whatever mode of regulation will assure the public interest is met, reserving to ourselves only the freedom we need to do our best.

A Public Interest Question for Congress

But what is the public interest to which our industry should now address itself? That question, as this Subcommittee surely knows, is currently the focus of considerable contention in the telecommunications industry and the regulatory community. I believe it is a matter of the utmost urgency that these contentions be authoritatively resolved. If they are not, the current trend of Federal regulatory policy may prove irreversible and we may find ourselves — of necessity — acquiescing in policies that are not of the Congress' making but of the FCC's making, policies that we believe contradict the intent of the Communications Act of 1934.

The Commission obviously thinks otherwise. Only Congress can resolve these differences authoritatively. That is why we welcome this Subcommittee's interest in telecommunications policy. Only Congress can remove the uncertainties that beset our industry and that, until they are resolved, will inhibit its progress. Only Congress can establish the priorities to which our industry should address itself and establish the basic ground rules governing the way America's communications requirements will be met.

How Congress may choose to act in this matter and how soon I do not presume to predict. It goes without saying that it will not act precipitously on matters that are admittedly complex and involve serious

social and economic judgments. I respectfully submit, however, that the consequences of inaction are grave. How grave you may judge from the fact that in recent months I have felt obliged to forewarn my colleagues in Bell System management that we might soon have to ready ourselves for a time when, as a consequence of piecemeal regulatory decisions, competitive standards would have sufficiently supplanted the public interest standards that have governed our business down through the years that our obligation to our share owners might give us no choice but to set a different course for ourselves.

If "Competition" Continues . . .

What new course? What would we feel ourselves obliged to do should there be no stay of the Commission's drive to install its brand of "competition" in every sector of telecommunications save basic exchange service and long distance calling?

First of all, we would feel obliged to move promptly toward a drastic realignment of our rates. Competition—even contrived competition—forces prices inexorably toward costs. That means that we must—and in the absence of a change in the regulatory outlook will—seek to minimize the competitive disadvantage that current jurisdictional separations procedures impose on our long distance services—procedures by which fully

55 cents of the revenues we receive from the average long distance call go to help cover costs which would have to be borne by local service.

That means, too, that in every state jurisdiction we will have to file for further increased rates for basic exchange service. Deprived of revenues that help support that service, we would have no other choice.

Over time, the Commission's policies will force us to limit our service responsibility. Throughout most of our industry's history there's never been a question as to whose responsibility that was. Whatever went wrong we would fix it and at no extra charge. That's still the way things are between us and most of our customers. But as more and more terminals are hung on the end of our lines for which we are not responsible and cannot properly be held accountable, as more and more businesses seek to piece out their communication facilities with whatever mix of telephone company and competitive facilities will advantage them most, we will be forced to seek a clear line of demarcation between what is ours and what isn't, what we can properly be held accountable for and what we can't. Doing so, I can tell you, runs against the basic instincts of telephone people who have been indoctrinated—I know I was—from the very outset of their careers in the tradition of total responsibility for the quality and continuity of the service we provide our customers.

I anticipate that over time, too, the Commission's policies, should they

be confirmed, will force an alteration of our research and development priorities—an alteration that might be quite subtile at first, as we find ourselves faced with the necessity to cope with competitive pressure points, but that might in time require us to recognize explicitly the need to give more attention to relatively superficial product differentiation and—reluctantly—somewhat less to fundamental systemic improvements of advantage to our entire customer body. In short, the fragmentation of the market that Commission policy encourages will force us to pay more attention to the trees at a cost, I fear, to the forest as a whole. I am saying that the relative priorities will be different if maintaining a competitive edge in this sector of the market or that becomes the criterion of our performance rather than, as it has till now, the continuous enhancement of the service capability of the entire network.

More troubling to me than those changes Commission policy will force upon us is the potential impact of that policy on the fundamental character of our business. Whatever skepticism others may entertain about it, ours is a business that seeks profit only to serve. The service motivation has been bred in the bones of telephone people over the course of a hundred years. To supplant that motivation with a market motivation might make us a no less profitable business and a no less effective one, though by different standards. But we would be a different business surely—and I for

one cannot help but feel that we would be the poorer for it and so would the public we serve.

Mr. Chairman, I have sketched the directions that FCC policy could force us to follow—not because we wish to follow them—we don't—but in order to convey to this Subcommittee what might be the consequences should there be no stay of further Commission action to extend its current policy. Accordingly it is my hope that this Subcommittee might find ways to assure that, while it deliberates, events do not decide—perhaps in ways not altogether to its liking—the issues that this hearing is just now setting out to examine.

What do I propose?

Certainly I do not propose that the regulatory clock be turned back to pre-Carterfone, pre-MCI conditions. For better or worse, we have multiple suppliers in the intercity private line field. For better or worse, we have "competition" in the supply of terminal equipment. I have no reason to question their competence.

Having said that, I must go on and say that our industry—and its regulators—are still left with some profoundly vexing questions. Where do our priorities lie? Granting that regulated "competition" in some measure is here and in all probability here to stay, how can we under those conditions best assure the fault-free performance of the network, how best safeguard the interests of the average user? How can we afford customers the options they seek with minimum sacrifice of

the economies of scale that have made telecommunications more and more affordable? How can we meet business' special needs with minimum impact on the home user?

Cooperation Not Contention

These are questions that urgently require attention—not on a piecemeal basis but in the context of a reasoned examination of the nation's communications requirements in the years ahead. Elsewhere I have suggested that the adversary relationship that characterizes so much of regulation these days may not be the best arrangement for solving certain kinds of problems. Particularly it is not the best way to resolve complex issues of principle. It is not the best way to establish goals. And it is not the best way to do long-range systemic planning. Not contention but cooperation is essential to these ends.

What most needs a cooperative, noncontentious consideration, it seems to me, is the definition of the public interest objective that our industry should address and our regulators demand.

That we in the telephone industry define the public interest as "the widest availability of high quality communications services at the lowest cost to the entire public" and equate the public interest with the interests of the average user of our service does not mean that we do not recognize the public's interest in economical, error-free computer communications. It does not mean that we do not see the public's

interest in specialized communications services tailored to the particularized interests of business and government, education and entertainment.

What is needed is a balance of interest. Where to strike it is the basic question we're asking Congress. Is our first obligation still what we have conceived it to be up till now and what we believe the Communications Act requires it to be—the general public—or should that priority yield to the interests of particularized users?

Needed: A Plan for the Future

That question, Mr. Chairman, is not answerable in the abstract. As a step toward answering it, however, let me suggest that the Congress might look to the FCC to develop a long range telecommunications plan for this nation. What will be the nation's communications requirements in, say, 1990? What potentialities does the industry's technology promise in the way of services yet unborn or only now evolving? Given such a "vision," it seems to me, we in the industry, our regulators, state and Federal, and the Congress itself would be in a position to appraise what regulatory policies might stand in the way of its fulfillment, which might best assure that the promise in our technology is fulfilled. Mr. Chairman, I assure you that the Bell System would look forward to the opportunity to participate in the shaping of such a vision. □